

differs also from the Herring in having the ventrals exactly in a line with the commencement of the dorsal, this last being placed a little further back than in that species.

D. 18; A. 19; C. 19, &c.; P. 18; V. 8.

Length 3 inches.

“Caught at night, off Cape Ines, Tierra del Fuego, two miles from the shore, in thirteen fathoms.”—D.—The specimen is probably not full-sized,

### 2. *CLUPEA ARCUATA*. *Jen.*

The present species is from Bahia Blanca. The specimens, of which there are two, are also in bad condition like the last, and probably not full-sized.

FORM.—Body deep, with the ventral line swelling rather more outwards than the dorsal. Greatest depth a little exceeding one-fourth of the entire length. Very much compressed: abdomen carinated, and very sharply serrated, the serratures sharper than in the common sprat. A few minute teeth at the extremity of the lower jaw, and also on each side of the intermaxillary, near its junction with the maxillary; the lower half of this last finely serrated. Pieces of the gill-cover much as in the Sprat; the subopercle rounded at bottom, the opercle with a shallow notch near the upper angle.

The dorsal commences exactly in the middle of the entire length, excluding caudal. The ventrals are as nearly as possible directly beneath its first ray: these fins are very small, and shorter than in the sprat.

D. 18; A. 23; C. 19, &c.; P. 16; V. 7.

Length 4 inches 2 lines.

COLOURS.—“Back blue; belly silvery.”—D.

The second specimen is similar, only smaller. Both were taken in the month of September.

### 3. *CLUPEA SAGAX*. *Jen.*

A third species of *Clupea*, in Mr. Darwin's collection, likewise in bad condition, much resembles in general form the common Pilchard.

Depth the same as in the Pilchard, but the head larger and longer than in that species, being one-fourth\* of the entire length. Abdomen smoother; no appearance of any serratures in front of the ventrals. Lower jaw but little advanced beyond the upper. No perceptible teeth, more than a few very minute serratures near the lower extremity of the maxillary. Diameter of the eye about one-fifth the length of the head. The form and veinings of the pieces of the opercle very much as in the Pilchard, but the interopercle more developed. The posterior margin of the opercle and subopercle taken together is almost quite straight, without any emargination anywhere, and not far out of a vertical; the subopercle is cut nearly square at bottom. The preopercle is much veined: there are also some veins on the upper part of

\* In the pilchard it is one-fifth.

the opercle, and lower down on this last piece some very deep striæ, running parallel to its junction with the preopercle, as in the Pilchard, but still more strongly marked.

The commencement of the dorsal is very little anterior to a middle point between the end of the snout and the base of the middle caudal rays. The ventrals are beneath the posterior half of the dorsal as in the Pilchard. There are the same two elongated scales on each side of the caudal as in that species. The scales on the body, however, are much smaller than in the Pilchard, with their free portions striated, the basal portions marked with some irregular curved lines running in a transverse direction towards the median line of the scale.

D. 11; A. 18 or 19; C. 19, &c.; P. 18; V. 8.

Length 10 inches 6 lines,

Habitat, Lima, San Lorenzo Island.

### *ALOSA PECTINATA*. *Jen.*

PLATE. XXV.

*A. corpore ovali, altitudine prope tertiam partem longitudinis æquante: ventre carinato, serraturis, præsertim inter pinnas ventrales et analem, acutis: maxillis subæqualibus, edentulis: preoperculo venoso; operculo striato: squamis pectinatis: pinnis ventralibus paulo ante dorsalem exorientibus.*

D. 16; A. 21; C. 19, &c.; P. 17; V. 7.

LONG. unc. 12.

FORM.—Of an oval compressed form, the depth very considerable, equalling very nearly one-third of the entire length. Head contained about three times and three quarters in the same. Abdomen sharply carinated, with strong serratures, especially between the ventrals and anal. Jaws nearly equal, perhaps the lower one a little the longest; intermaxillary deeply notched; no apparent teeth anywhere. Eyes rather high, partly covered both anteriorly and posteriorly by a membranaceous veil; their diameter about one-fifth the length of the head; more than one diameter between them and the end of the snout. Subopercle obliquely rounded off at bottom, but the curvature of the posterior margin of the opercle and subopercle taken together not very considerable. Preopercle marked with vein-like ramifications; opercle similarly veined, and also striated below, as in the species last described, though more finely. Scarce any trace of a lateral line.

Scales moderately large, thin and membranaceous. One from the middle of the side of a sub-oblong form, the hinder angles rounded, its length only two-thirds of its breadth; the greater portion of the surface marked with exceedingly delicate striæ; scarcely visible without a strong lens, the anterior margin pectinated, and with a slightly projecting lobe in the middle. The scales as they approach the tail, become longer in proportion to their breadth, the basal margin more rounded, and sometimes with a strongly projecting lobe in the middle. The pectinations are longest on the scales covering the nape.

The dorsal commences a little behind the middle point of the oval of the body, and the ventrals are attached a little in advance of that fin. The anal commences a little behind the termination of the dorsal, and reaches to the commencement of the fleshy part of the tail: the last ray in both dorsal and anal is slightly lengthened beyond the preceding ones. The pec-